

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021202**Date Inspected:** 28-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as, 4W-pp24-W4-2&4, 7E-pp53-E4-3, 10E/11E-A following items were observed:

4W-pp24-W4-2&4

The QA Inspector randomly observed the ABF welder Mike Jimenez performing carbon arc gouging and back grinding of the above identified weld joints. The QA inspector randomly observed the ABF welder grind the back gouged weld joints to bright metal. The QA Inspector randomly observed the back gouged weld joints and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the SE QC Inspector Gary Ersham perform magnetic particle testing of the back gouged weld joint and noted no relevant indications were present at the time of the testing. The QA Inspector randomly observed the ABF welder continue welding the in process lift lug hole restoration of the lifting lug hole identified as #2. The QA Inspector noted the weld joint was approximately 50% complete at the time of the SMAW 4G back weld. The QA Inspector randomly observed the ABF welder continue the SMAW cover pass. The QA Inspector noted the ABF welder completed #2 and moved over to #4. The QA Inspector randomly observed the SMAW parameters were 1/8" E7018 low hydrogen electrodes with 119 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on this date. The QA Inspector noted the weld reinforcement was ground flush on the QA Inspectors shift. The QA Inspector observed the grinding did appear to comply with the contract requirements for the lifting lug hole identified as #2 & #4.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

7E-pp53-E4-3

The QA Inspector randomly observed the ABF welder identified as Jason Collins and ABF helper begin fitting up the lifting lug deck insert identified above. The QA Inspector noted the direction of rolling was stamped with a low stress stamp in the center of the insert plate, so no grinding or welding would mask or deface the identifying marking. The QA Inspector randomly observed the bevel angle to be 45°. The QA Inspector noted the surface of the bevel appeared to be a machined surface with bright shiny metal. The QA Inspector noted the ABF welder was utilizing a prefabricated round copper backing plate held in place with magnets. The QA Inspector noted the fit up was completed on the QA Inspectors shift and appeared to be in general compliance with the contract documents. The QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector randomly observed the SMAW parameters were 5/32" E7018 low hydrogen electrodes with 195 Amps for the root pass. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. After the SMAW root pass was completed the QA Inspector randomly observed the welder switch to 3/16" E7018 low hydrogen electrodes with 275Amps and used through the completion of the weld. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on the QA Inspectors shift. It was noted the ABF welder did not remove the weld reinforcement of the QA Inspectors shift

10E/11E-A

Upon the arrival of the QA Inspector it was observed the two OBG lifts identified above were approximately 500mm apart. The QA Inspector randomly observed the bevel face of lift 10E in weld segments A1 and A2 had not been prepared for welding. The QA Inspector observed rust and paint still in place on the bevel face of the weld joint. The QA Inspector notified the ABF Welding Superintendent Dan Ieraci of the issue described above (see summary of conversation). The QA Inspector randomly observed the remainder of the weld segments had been ground to bright metal and protected by tape.

The QA Inspector noted ABF representatives had removed the paint and rust on the remainder of weld joint described above. After the grinding was completed the QA Inspector randomly observed the ABF representatives push the 10E and 11E together for fit up. The QA Inspector noted no fit up of the top deck plates were performed on this date. The QA Inspector performed random visual testing of the under side of the weld joint and noted all of the top deck plate longitudinal welds that intersect with the steel backing bar to be installed appeared to had been ground and blended. The QA Inspector noted the grinding blending was performed in a manner to allow intimate contact with the steel backing bar for the above weld joint.

Summary of Conversations:

The QA Inspector informed Mr. Ieraci the paint had not been removed in the area of A1 A2 on lift 10E. Mr. Ieraci observed the area and informed the QA Inspector he would have a crew begin preparing the area immediately. Mr. Ieraci informed the QA Inspector the grinding should had been done already but he will have it done prior to the OBGS being pushed into place.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: Bettencourt,Rick

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer